

other hand, we find, in a certain number of cases, functional lesions of the trigeminus in the course of locomotor ataxy. This nerve acts in all ways like a posterior root.

The cephalic disorders of locomotor ataxy, depend either upon sensibility or motility; the author studies successively these two orders of symptoms.

The pains of the face are of the fulgurant and persistent and continuous types. The orbital branches are the ones most frequently involved. The pains often leave after them a zone of hyperæsthesia. The continuous pain is the most frequent, it exists around the orbits; when more generalized it may simulate a hemicrania, so much the more in that it is accompanied with photophobia, flow of tears and vaso-motor disorders. The eye itself is not free from these pains, and certain patients have asked that theirs be extirpated. In certain cases there exists at the same time anæsthesia of the mucous membrane and of the skin.

The paralysis and pseudo-paralysis which show themselves in the course of locomotor ataxy may affect all the muscles; they are transitory or little pronounced. The author notices in this connection how the integrity of the centripetal system is essential for the good execution of the movements of the life of relation, and also how direct are the relations between the posterior, spinal or bulbar (trigeminal) roots and the corresponding motor roots (cranial nerves). But the original cause of locomotor ataxia appears to be an irritation located primitively in the sensory fibres of the nervous system; we ought not therefore to be astonished at the appearance of paralysis of sensory origin in the domain of the motor nerves of the trigeminal group.

We may also observe motor inco-ordination of the muscles innervated by the motor branches of the trigeminal group.

Paralyses are more frequent in the muscles of the members or in those of the eye, but, on account of their locality and their frequently transitory nature, they are sometimes difficult to observe. It is therefore an error to suppose that ataxia of movement is independent of all paralysis.

The one that is left of all the theories proposed for the explanation of the co-ordination of movements is the law of Duchenne on the *role* of antagonist muscles. In every muscular movement the forces may be reduced to two, one of which produces the movement, and the other moderates it, and if the movement becomes irregular and exaggerated, it is because one of the two antagonists acts too little, whether it acts on the bone, the eyes, or the skin.

The following are among the recently published papers on the Pathology of the Nervous System and Mind, and their Pathological Anatomy:

BULL, Choked Disk following Injuries to the Head, *Am. Jour. Med. Sci.* October, 1877; MILLS, Spasmodic Torticollis; PITRES, Contribution to the Study of the Anomalies of Sclerosis in Disseminated Patches, *Revue*

Mensuelle, December, 1877; LEPINE, Note in regard to Cerebral Glosso-Labio-Laryngeal Paralysis of the Pseudo Bulbar Form, *Ibid*; LANGE, Athetosis, *Hospitals Tidende* Nos. 47 and 48; FRITSCH, On the Question of Primary Chronic Mania, (*Verrucktheit*) *Psychiatrisches Centralblatt*, Oct. 1877; RUSSELL-REYNOLDS, Some Affections of the Nervous System Dependent upon a Gouty Habit, *Brit. Med. Journal*, Dec. 15; BACON, Case of Athetosis, *Ibid*; HOLLIS, On Sleeplessness and its Treatment, *Practitioner*, December; DURET, Cerebral Commotion, *Le Progres Médical*, No. 50, 1877; CHERON, Chemical Modifications of the Urine in Paralysis Agitans, *Ibid*, No. 48; DURET, On the Pathological Physiology of Cerebral Traumatisms, *Ibid*, No. 49; NIXON, Concussion of the Brain, *Pacific Med. and Surg. Journal*, December, 1877; WOOD, Chorea: Its Etiology and Varieties, with a New Treatment, *N. Y. Med. Record*, Dec. 15.

c.—THERAPEUTICS OF THE NERVOUS SYSTEM AND MIND.

ACTION OF ANÆSTHETICS.—H. Ranke (*Centralblatt*, 25th Aug., 1877,) mentions his older experiments in which he anticipated the recent results of Binz, that certain hypnotics, morphine, chloral, ether, and chloroform produce a coagulation in the cerebral ganglion-cells. Experimenting in 1867 with chloroform, ether, and amylene, he had found that during prolonged narcosis the irritability is lost first in the nerve, subsequently in the muscle, and that finally rigidity occurs. He had also observed that the vapor of these anæsthetics coagulates solutions of myosine and cerebral albuminoids. Differing from Binz, he could coagulate neither the ganglion-cell nor a solution of it by means of morphine.

More recent experiments have shown that rigidity is produced in muscles by injections into the artery of ether, amylene, bromoform, chloroform, and solutions of bromal and chloral. Comparative injections of water, various salts, alcohol, etc., did not coagulate the living muscle. Ranke, therefore, advances the hypothesis that the narcotic effects of these substances depend on a similar temporary coagulation produced in the ganglion-cells. (No mention is made that the same hypothesis is maintained since many years by Cl. Bernard on similar grounds.)

INJURIOUS EFFECTS FROM ELECTRIC TREATMENT.—Dr. D. F. Lincoln (*Boston Med. and Surg. Journal*) calls attention to the effects that are sometimes produced by electrical treatment in aggravating certain symptoms and producing new ones, indicating an occasional injurious action. This injurious effect he attributes to over-stimulation of the nerves and ganglion, the action of electricity being generally stimulant to the nervous system. He gives several cases in which this injurious effect followed electric treatment.